Actiontec®

54 Mbps

Wireless Multiport Print Server

Model #: 802PSG

User Manual

Ver 1.0

Solutions for the Digital Life™

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Introduction 1

Congratulations on purchasing the Actiontec 54 Mbps Wireless Multiport Print Server. This Print Server is a powerful and convenient network printing solution connecting USB and parallel printer(s) to a wireless 802.11b/g network. The Print Server has a 10/100Mbps auto-sensing port, allowing it to be connected to a 10Base-T or 100Base-TX network without the need for a dedicated print server. The Print Server also supports multiple servers and multiple protocols, providing the capability to print from anywhere, from any computer, and from any application.

The Print Server supports TCP/IP and AppleTalk protocols. It also supports the most common network operating systems and protocols, including Windows 98SE, Me, 2000, and XP, and Macintosh OS X (10.2+).

Package Contents

Make sure the following items came in this package:

- Actiontec 54 Mbps Wireless Multiport Print Server
- Power Adapter
- Installation CD (includes this manual)
- Quick Start Guide

Features

- 10/100 Ethernet port
- Wireless 54 Mbps 802.11g compliant
- 64-bit, 128-bit WEP encryption and WPA-PSK support
- Wireless infrastructure and ad-hoc mode support
- Removable antenna
- Integrated wireless site survey tool
- Two USB 1.1 ports (2.0 compatible); 1 parallel port
- Internet Printing Protocol (IPP) support
- Windows-based printing support
- Mac OS X-based native printing support (PostScript® printers only)

System Requirements

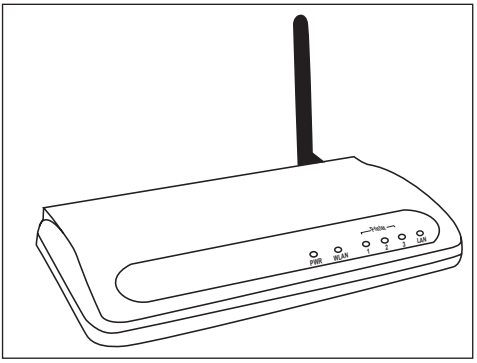
- IBM-compatible system with 200 Mhz Pentium, at least 64 MB of RAM, and CD-ROM drive
- Ethernet network adapter
- Windows 98SE, Me, 2000, or XP
- TCP/IP installed
- Parallel or USB printer
- Wireless router

Getting to Know the Print Server

This section contains a quick description of the Print Server's external features.

Front Panel

The Print Server's front panel features six lights (LEDs):



PWR Light

The PWR (Power) light illuminates when the Print Server is powered on, and remains off (or dark) when no power is present.

WLAN Light

The WLAN light illuminates when the Print Server is connected wirelessly.

Printer 1 Light

The Printer 1 light flashes when printing to the printer connected to the P1 (parallel) port of the Print Server.

Printer 2 Light

The Printer 2 light flashes when printing to the printer connected to the P2 (USB) port of the Print Server.

Printer 3 Light

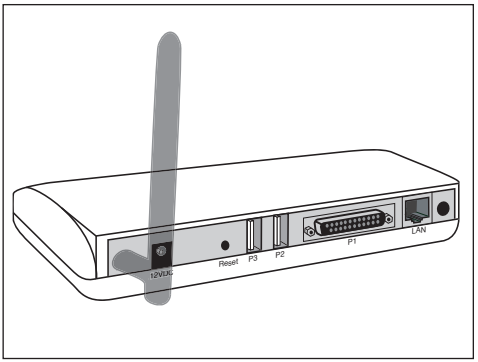
The Printer 3 light flashes when printing to the printer connected to the P3 (USB) port on the rear panel of the Print Server.

LAN Light

The LAN light illuminates when the Print Server is connected via its LAN port.

Rear Panel

The Print Server's rear panel contains five ports (12VDC [Power], P3 [USB], P2 [USB], P1 [Parallel], and LAN), as well as a Reset button.



Power Port

The Power port (marked "12VDC") is used to connect the Print Server to an electrical wall outlet via the Power adapter.

P2, P3 Ports

The P2 and P3 ports are USB ports used to connect a USB printer to the Print Server.

P1 Port

The P1 port is a parallel port used to connect a parallel printer to the Print Server.

LAN Port

The LAN port is used to connect the Print Server to a computer via Ethernet cable.

Reset Button

The Reset button is used to restore the Print Server's factory default settings. To do this, press the Reset button for 15 seconds.

Technical Support

Actiontec Electronics prides itself on making durable, high-quality, high-performance products. If you need assistance, the Actiontec Technical Support Department is available all day every day to provide professional support.

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Setting Up the Print Server

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This chapter explains how to set up the Print Server. There are four parts involved: Connecting the Print Server, Configuring the Print Server, Configuring the Printer's Settings, and Connecting the Printer.

Connecting the Print Server

To connect the Print Server to a computer:

1. Remove the Print Server from the package.

2. Insert one end of an Ethernet cable in the "LAN" port of the Print Server, and the other end in an Ethernet port on the back of the computer.

3. Plug the large end of the Power cord into an electrical wall outlet, and the smaller end in the Power (marked "12VDC") on the back of the Print Server.

4. Make sure the Power and LAN lights on the front panel of the Print Server are blinking or glowing steadily.

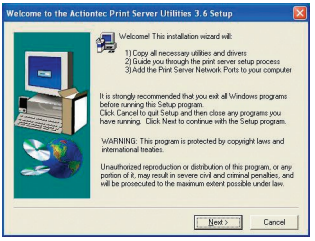
The Print Server is connected to a computer. Next, go to "Configuring the Print Server," below.

Configuring the Print Server

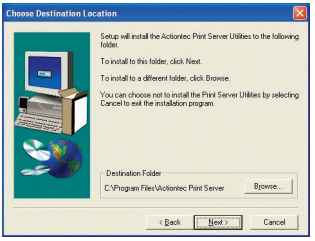
To configure the Print Server:

1. Insert the Installation CD in the CD-ROM drive of the computer. When the window shown below appears, click **Install Print Server Manager.**

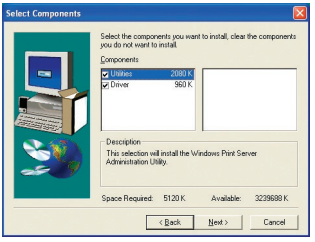
2. The "Welcome to the Actiontec Print Server" window appears. Click **Next**.



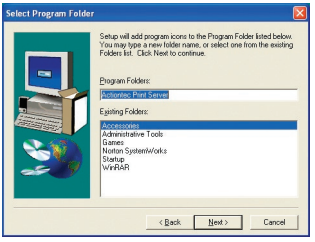
3. The "Choose Destination Location" window appears. Click **Next**.



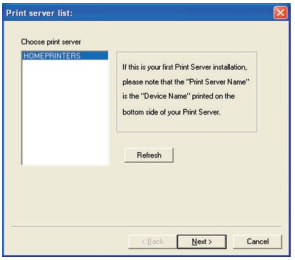
4. The "Select Components" window appears. Click **Next**.



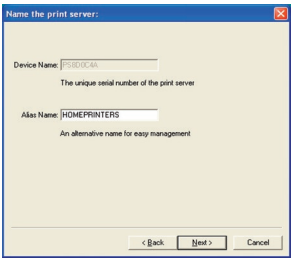
5. The "Select Program Folder" window appears. Click **Next**.



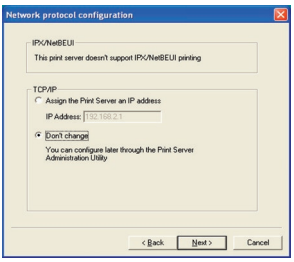
6. The "Print server list" window appears, and the Setup program locates the Print Server. If the Print Server does not appear in the "Choose Print Server" list box, make sure it is connected properly, then click **Refresh**. When the Print Server is located, click **Next**.



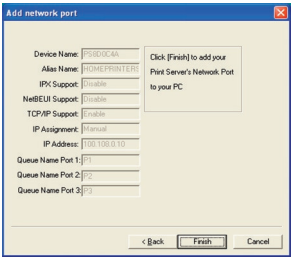
7. The "Name the print server" window appears. Enter a name for the Print Server in the "Alias Name" text box, then click **Next**.



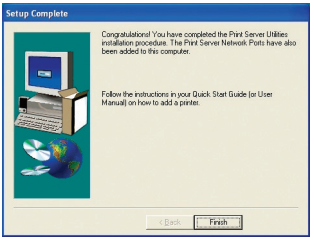
8. The "Network protocol configuration" window appears. If needed, change any of the network settings. However, Actiontec recommends leaving the TCP/IP settings unchanged. Click **Next**.



9. The "Add network port" window appears. Click **Finish**.



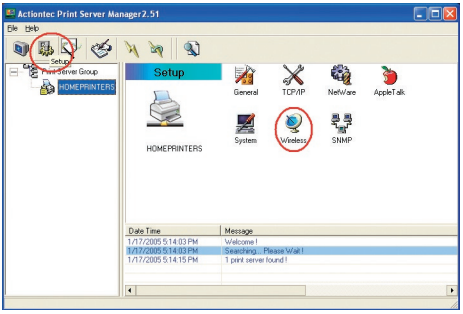
10. When the "Setup Complete" window appears, click **Finish**.



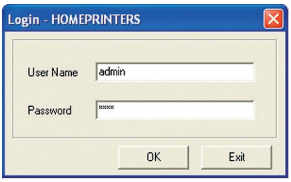
11. Close all windows and restart the computer.

12. After the computer restarts, from the desktop, select **Start**, **Programs**, **Actiontec Print Server**, and **Print Server Configuration**.

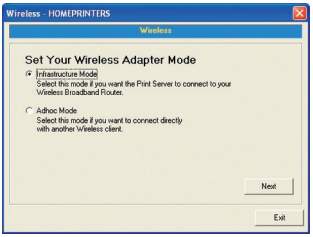
13. When the next window appears, highlight the Print Server name from the list on the left side and click **Setup** on the toolbar. Then, double-click **Wireless**.



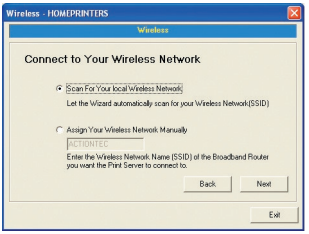
14. The "Login" window appears. Enter the username and password (default username is "admin," and default password is "1234"). Click **OK**.



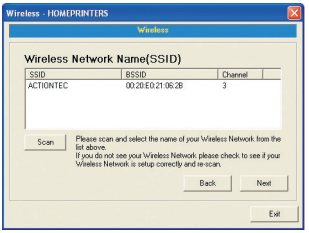
15. The "Set Your Wireless Adapter Mode" window appears. Select **Infrastructure Mode** by clicking in the appropriate circle, then click **Next**.



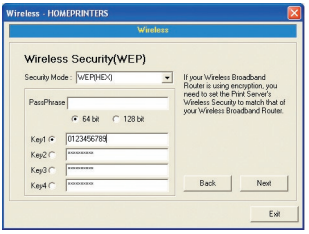
16. When the "Connect To Your Wireless Network" window appears, select **Scan For Your local Wireless Network** by clicking in the appropriate circle. Click **Next**.



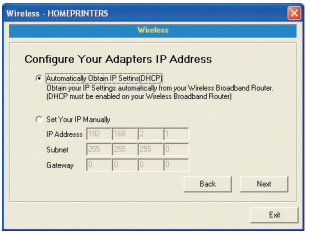
17. The "Wireless Network Name (SSID)" window appears. Select the name of the wireless network to which the Print Server will connect. Click **Next**.



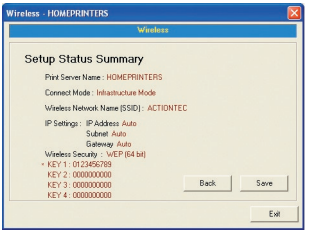
18. The "Wireless Security" window appears. Enter the security settings (if necessary) needed to join the wireless network, then click **Next**.



19. The "Configure Your Adapter's IP Address" window appears. Make sure "Automatically Obtain IP Settings (DHCP)" is active, then click **Next**.

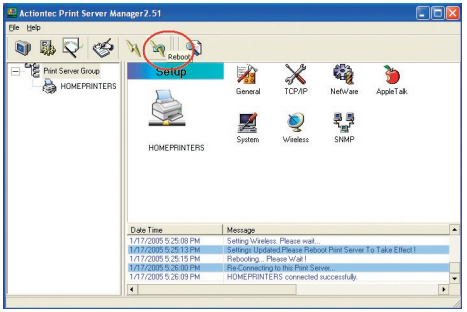


20. The "Setup Status Summary" window appears. Make sure the settings are correct, then click **Save**.



21. In the popup window that appears, click **Yes**.

22. Back in the Actiontec Print Server Manager window, click **Reboot** in the toolbar.

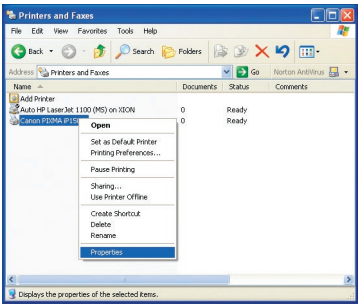


After the computer restarts, the Print Server is connected and configured. Next, go to "Configuring the Printer's Settings" on the next page.

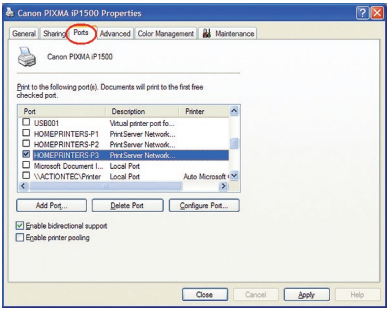
Configuring the Printer's Settings

To configure the printer's settings:

1. After the computer restarts, from the desktop, select **Start**, **Settings**, **Control Panel**, and **Printers and Faxes**. Right-click on the name of the printer and from the menu that appears, select **Properties**.



2. In the "Printer Properties" window, select **Ports**. From the "Port" list, select the **PrintServer Network Port** that corresponds to the Print Server port to which the printer will be connected. In the example below, the "P3" port (one of the Print Server's USB ports) has been selected. Click **Apply**, then **Close**.

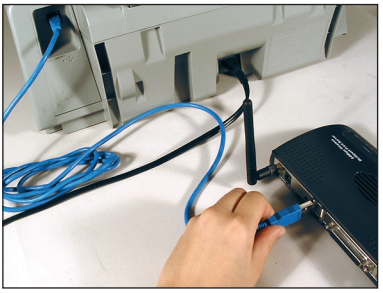


The printer is now configured properly. Next, go to "Connecting the Printer," on the next page.

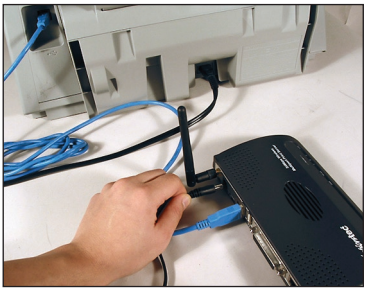
Connecting the Printer

To connect the printer to the Print Server:

1. Unplug the Ethernet cable and Power cord from the Print Server.
2. Unplug the printer's USB or parallel cable from the computer and insert it into the Print Server port selected in step 2 of "Configuring the Printer's Settings."



3. Plug the Power cord back into the Power port of the Print Server.



4. Make sure the Power and WLAN lights are blinking or glowing steadily.

The Print Server is now connected to a printer and wireless router, and configured for use.

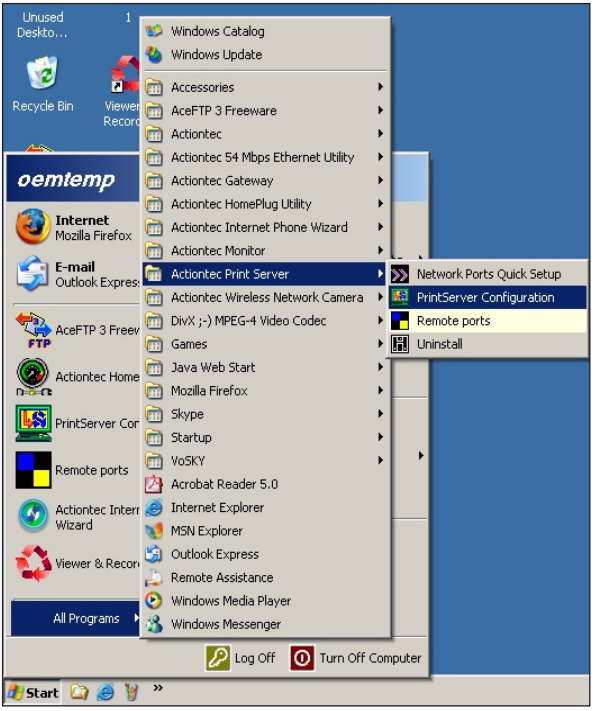
Using the Print Server Manager

3

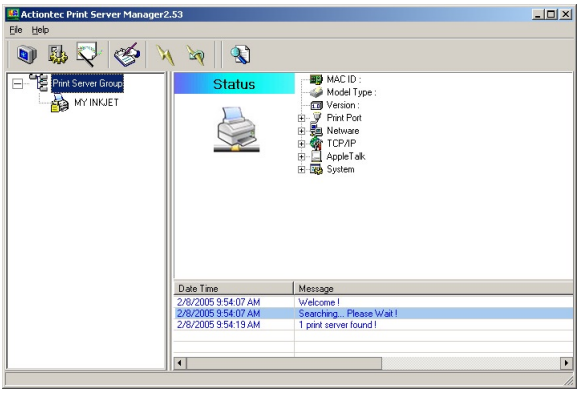
This chapter explains using the Print Server Manager, which allows the user to manage and further configure the Print Server.

Accessing the Print Server Manager

To access the Print Server Manager, from the desktop, select **Start**, **Programs**, **Actiontec Print Server**, and **Print Server Configuration**.



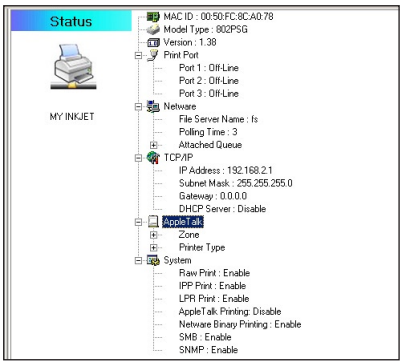
Doing so will generate the "Print Server Manager" window, as shown below.



In the left pane of the window is a graphical representation of the Print Server and the printers connected to it. At the bottom of the screen is an event monitor, which lists any actions performed while using the Print Server Manager. There are a series of icons in the tool bar across the top of the window: Status, Setup, Wizard, Report, Refresh, Reboot, and Search.

Status

To check the status of the Print Server, highlight it in the left pane, then click **Status**. This generates the "Status" screen in upper right pane of the Print Server Manager window, which displays information about the Print Server. None of these settings can be changed from here.



MAC ID

"MAC ID" displays the MAC (Media Access Control) address of the Print Server.

Model Type

"Model Type" displays the Print Server's model number.

Version

Version displays the Print Server's firmware version.

Print Port

To display the status of the Print Server's ports, click the "+" icon next to "Print Port."

Netware

To display the status of the Print Server's Netware connection, click the "+" icon next to "Netware." The connection's "File Server Name," "Polling Time," and "Attached Queue" status will be displayed.

TCP/IP

To display the status of the Print Server's TCP/IP connection, click the "+" icon next to "TCP/IP." The Print Server's "IP Address," "Subnet Mask," "Gateway," and "DHCP server" status will be displayed.

Apple Talk

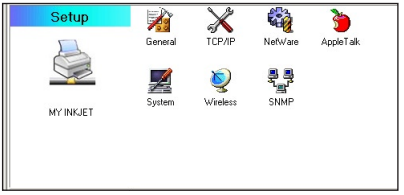
To display the status of the Print Server's Apple Talk connection, click the "+" icon next to "Apple Talk." The Print Server's "Zone" and "Printer Type" status will be displayed.

System

To display the status of the Print Server's System, click the "+" icon next to "System." The Print Server's "Raw Print," "IPP Print," "LPR Print," "Apple Talk Printing," "Network Binary Printing," "SMB." and "SNMP" status will be displayed.

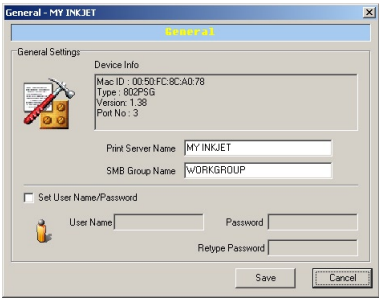
Setup

To make changes to the Print Server's configuration, highlight it in the left pane, then click **Setup**. This generates the "Setup" screen in upper right pane of the Print Server Manager window, which displays various configuration options. Double-click on one of the configuration icons to make changes.



General

Double-clicking the "General" icon in the Setup screen generates the "General" window.



Device Info

The "Device Info" text box displays the Print Server's "MAC ID" (MAC address"), "Type" (model number), "Version" (firmware version), and "Port No."

Print Server Name

The "Print Server Name" text box displays the Print Server's network name. To change the name, highlight the current name, then enter a different name.

SMB Group Name

This is the name of the workgroup to which the Print Server belongs. To change, highlight the current workgroup name, then enter a different one.

Set User Name/Password

To set a user name and password to allow access to the Print Server's Web Administrator tool (see chapter 4):

1. Activate "Set User Name/Password" by clicking in the appropriate check box.
2. Enter a user name in the "User Name" text box.
3. Enter a password in the "Password" text box.
4. Re-enter the password in the "Retype Password" text box.
5. Click **Save**.

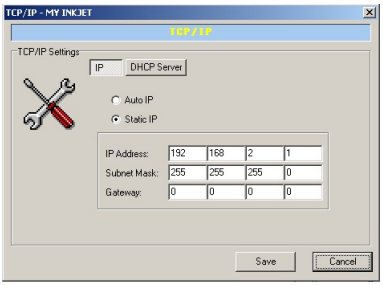
Save/Cancel

After making changes in the General window, click **Save** to save them. Click **Cancel** to discard any changes made.

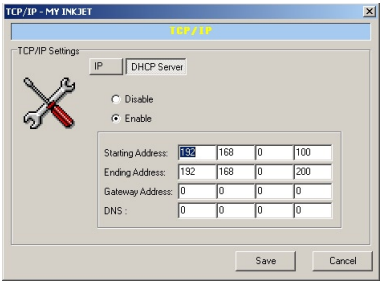
TCP/IP

Double-clicking the "TCP/IP" icon in the Setup screen generates the "TCP/IP" window. There are two configurations in this window:

IP:



DHCP Server:



This window allows the user to configure the Print Server to automatically get its IP address from the network's DHCP server, or manually specify a static print server IP address. The Print Server also has a built-in DHCP server that manages the Print Server IP addresses.

IP

Select **IP** to change the Print Server's IP address settings. To configure the print server to automatically get an IP address from the network's DHCP server, activate "Auto IP." To manual assign an IP address, activate "Specify IP" then enter "IP Address," "Subnet Mask," and "Gateway" addresses for the Print Server.

DHCP Server

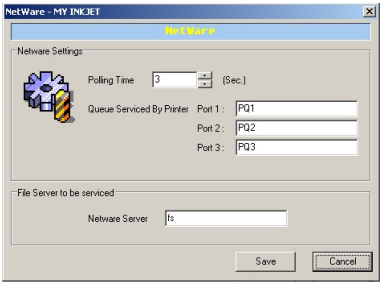
Select **DHCP Server** to change the Print Server's DHCP settings. Activate "Enable" or "Disable" to start up or turn off the the Print Server's DHCP server (Disable is activated by default). If enabling the DHCP server, enter a "Start Address," "End Address," "Gateway," and "DNS." The Print Server will then assign a unique IP address (within the defined subnet) for each client.

Save/Cancel

After making changes in the TCP/IP window, click **Save** to save them. Click **Cancel** to discard any changes made.

Netware

Double-clicking the "Netware" icon in the Setup screen generates the "Netware" window.



Polling Time

Enter the Print Server's polling time here. Polling time is the time the Print Server waits before printing jobs on the Netware server.

Queue Serviced by Printer

Enter the name of the Netware printer queue here. This queue keep all printing jobs waiting on the Netware server.

Netware Server

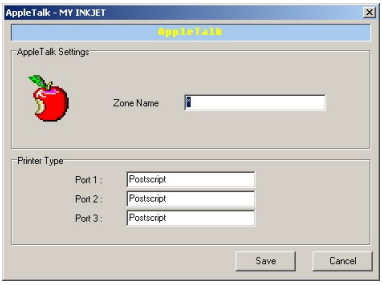
If applicable, enter the Netware server here. This file server provides the printer queues.

Save/Cancel

After making changes in the Netware window, click **Save** to save them. Click **Cancel** to discard any changes made.

Apple Talk

Double-clicking the "Apple Talk" icon in the Setup screen generates the "Apple Talk" window. AppleTalk is a data communication protocol used by Macintosh computers. The Print Server uses this protocol to join the AppleTalk network and share printers with Macintosh computers.



Zone Name

Enter the Print Server's AppleTalk zone name in the "Zone Name" text box. The zone name entered must be active before other computers in the same zone can share printers using the Print Server. Only computers in the same zone as the Print Server can share printers. Enter "*" in the Zone Name text box allows all AppleTalk users in all zones to share printers through the Print Server.

Printer Type

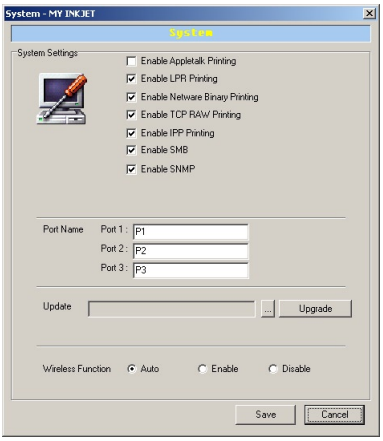
Enter the printer type of each printer connected to the Print Server. See the printer's documentation for information concerning printer type.

Save/Cancel

After making changes in the AppleTalk window, click **Save** to save them. Click **Cancel** to discard any changes made.

System

Double-clicking the "System" icon in the Setup screen generates the "System" window.



Printing Protocols

At the top of the "System" window is a list of printing protocols the Print Server can use. Activate a protocol by clicking in the appropriate check box.

Port Name

The name of the Print Server's three ports can be changed here. Enter a new name in the appropriate text box to change.

Upgrade Firmware

To find the appropriate upgrade file, click **…**, then browse for the file. When the file is located, click **Upgrade** to upgrade the Print Server's firmware.

Wireless Function

Here, the wireless capabilities of the Print Server can be enabled or disabled manually (by clicking in the appropriate circle). Since the Print Server cannot operate both wirelessly and through an Ethernet network simultaneously, when the Print Server is first powered up, it automatically detects whether it is connected to an Ethernet network. If so, it will run in wired mode, with the wireless mode disabled. If no Ethernet network is detected, the Print Server enables wireless mode and disables wired mode. Activating "Auto" (the default selection) allows the Print Server to automatically enable or disable wireless mode.

Save/Cancel

After making changes in the System window, click **Save** to save them. Click **Cancel** to discard any changes made.

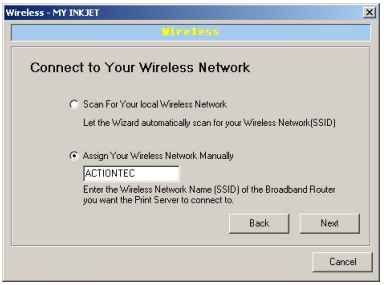
Wireless

Double-clicking the "Wireless" icon in the Setup screen generates the first "Wireless" window.

To set up the Print Server for wireless operation:

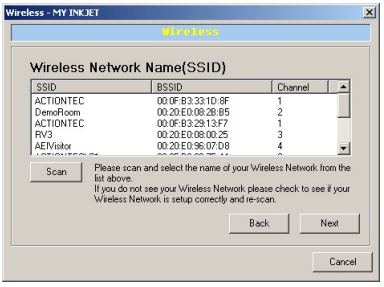
1. In the first "Wireless" window, activate either "Infrastructure Mode" or "AdHoc Mode." Infrastructure Mode should be used if connecting to an already existing wireless network. Activate Ad Hoc Mode to create a peer-to-peer wireless network. After selecting one of the options, click **Next**.

2. The next window appears. Select one of the methods to connect the Print Server to the wireless network: "Scan for your local Wireless Network" or "Assign Your Wireless Network Manually."



Scan for your local Wireless Network

Selecting this option generates another window, which lists the available wireless networks. Highlight the desired wireless network from the list, then click **Next** to connect.



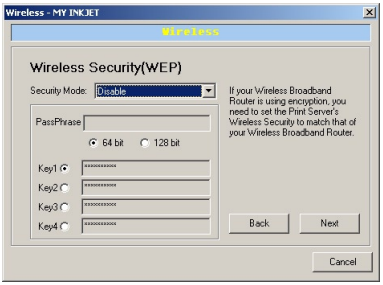
Assign Your Wireless Network Manually

Selecting this option allows the user to manually select the wireless network. To do this, activate "Assign Your Wireless Network Manually" by clicking in the appropriate circle, then enter the SSID of the wireless network in the text box. Click **Next**.

3. The next window appears. Select the type of security used with the wireless network from the menu list (generated by clicking on the down arrow next to the "Security Mode" text box): Disable, WEP ASCII, WEP HEX, or WPA - shared key.

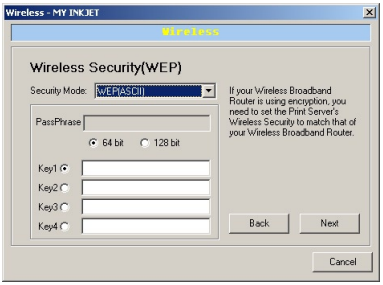
Disable

Selecting this option disables the wireless security on the Print Server. After selecting, click **Next**.



WEP ASCII

Selecting this option generates the "Wireless Security (WEP)" window. Here, the Print Server can be configured with 64- or 128-bit WEP security.



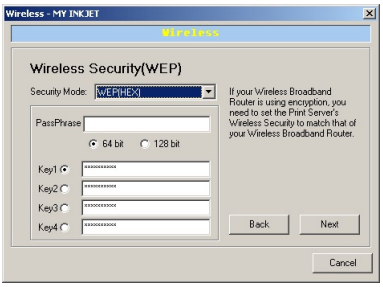
64-bit WEP - To create a set of 64-bit WEP ASCII keys, activate one or more keys by clicking in the appropriate circles, then enter five standard characters (numbers or letters) in each activated **Key** text box (**Key 1-**, **Key 2-**, **Key 3-**, **Key 4-**). After activating 64-bit WEP on the Print Server, a computer with wireless capability can use the Print Sever only if these same keys are entered in the computer's wireless encryption scheme.

128-bit WEP - To create a set of 128-bit WEP ASCII keys, activate one or more keys by clicking in the appropriate circles, then enter 13 standard characters (numbers or letters) in each activated **Key** text box (**Key 1-**, **Key 2-**, **Key 3-**, **Key 4-**). After activating 128-bit WEP on the Print Server, a computer with wireless capability can use the Print Sever only if these same keys are entered in the computer's wireless encryption scheme.

After configuring, click **Next**.

WEP HEX

Selecting this option generates the same "Wireless Security (WEP)" window as selecting WEP ASCII, except that the "Passphrase" text box is active and the "Key" text boxes are already filled.



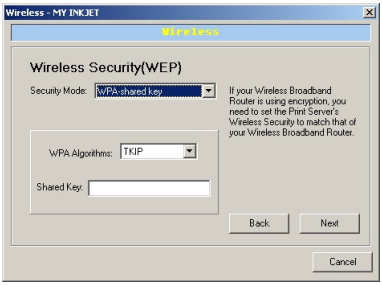
64-bit WEP - 64-bit WEP requires one or more keys, each key comprising five hexadecimal pairs. A hexadecimal digit consists of an alphanumeric character ranging from 0-9 or A-F. An example of a 64-bit WEP key is: 4E-A3-3D-68-72. To create a set of 64-bit WEP HEX keys, activate one or more keys by clicking in the appropriate circles, then enter five hexadecimal digit pairs in each activated **Key** text box (**Key 1-**, **Key 2-**, **Key 3-**, **Key 4-**). After activating 64-bit WEP on the Print Server, a computer with wireless capability can use the Print Sever only if these same keys are entered in the computer's wireless encryption scheme.

128-bit WEP - 128-bit WEP requires one or more keys, comprising 13 hexadecimal pairs. A hexadecimal digit consists of alphanumeric characters ranging from 0-9 or A-F. An example of a 128-bit WEP key is: 3D-44-FE-6C-A1-EF-2E-D3-C4-21-74-5D-B1. To create a 128-bit WEP key, activate **Key 1** by clicking in the appropriate circle, then enter 13 hexadecimal digit pairs in the **Key** text box. After activating 128-bit WEP on the Print Server, a computer with wireless capability can use the Print Sever only if this key is entered in the computer's wireless encryption scheme.

Passphrase - Instead of entering hexadecimal keys, a Passphrase can be entered in the "Passphrase" text box. This passphrase will then be used by the Print Server to create hexadecimal keys. Other users must be able to run WEP HEX Passphrase on their computers, and know the passphrase, to connect to the Print Server.

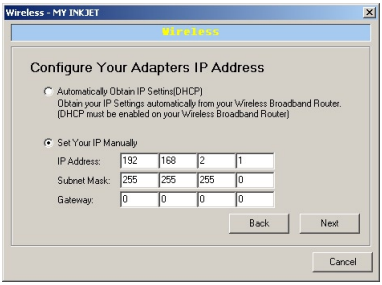
WPA - shared key

Selecting this option generates the "Wireless Security (WEP)" window with the "WPA Algorithms" and "Shared Key" text boxes. To use, enter an alphanumeric word (from 8 to 63 characters in length) in the "Shared Key" text box. Other users must be able to use WPA shared key on the their computers, and know the shared key, to connect to the Print Server.



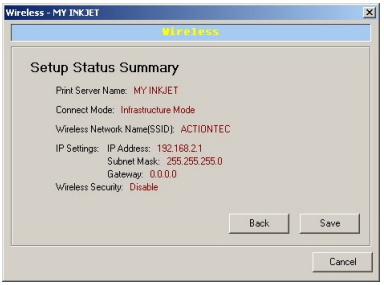
After selecting, click **Next**.

4. The next window allows the user to configure the Print Server to automatically get its IP address from the network's DHCP server, or manually specify a static IP address. To configure the Print Server to automatically get an IP address from the network's DHCP server, activate "Automatically Obtain IP Settings (DHCP)." To manual assign an IP address, activate "Set Your IP Manually" then enter "IP Address," "Subnet Mask," and "Gateway" addresses for the Print Server.



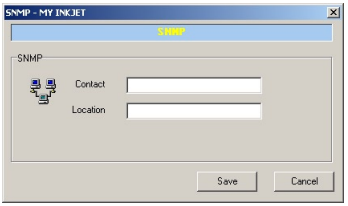
After selecting, click **Next**.

5. The final window displays a summary of the Print Server's wireless settings. If changes were made, make sure they're correct, then click **Save**.



SNMP

Double-clicking the "SNMP" icon in the Setup screen generates the "SNMP" (Simple Network Management Protocol) window.



Contact

Enter the name of the technician managing the Print Server here. This name will appear in SNMP monitoring tools.

Location

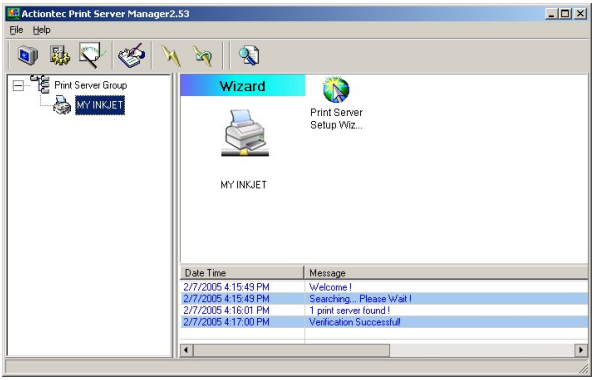
Enter the location of the Print Server here. This location will appear in SNMP monitoring tools.

Save/Cancel

After making changes in the SNMP window, click **Save** to save them. Click **Cancel** to discard any changes made.

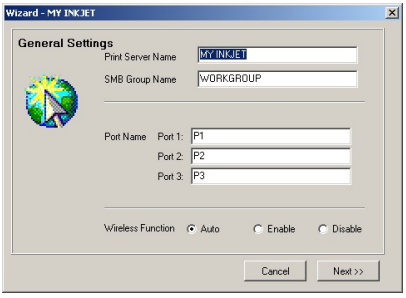
Wizard

Clicking on the "Wizard" icon in the toolbar of the Print Server Manager window generates the Wizard pane, as shown below.

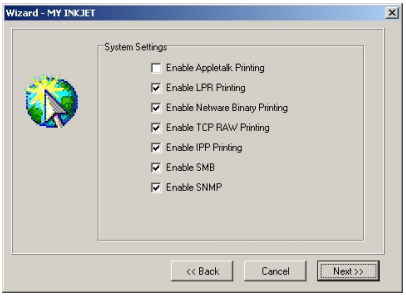


The Setup Wizard can be used to do a quick reconfiguration of the Print Server. To run the Wizard, click on the "Print Server Setup Wizard" icon, which generates the first Wizard windows, as shown below:

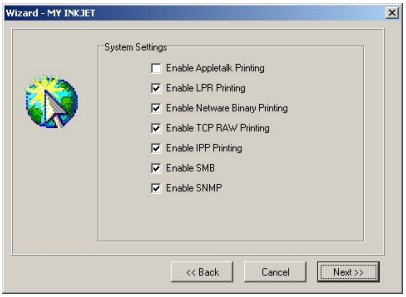
1. The first Wizard window is "General Settings." From here, the Print Server, SMB Group, and Port names can be changed, as well as manually enabling or disabling the Wireless function. The Wireless function can also be set to "Auto." When finished, click **Next**.



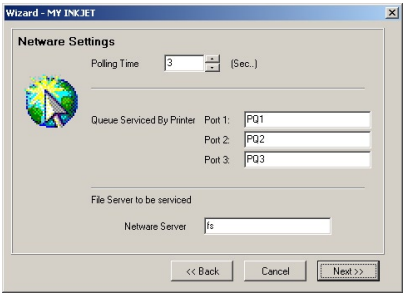
2. The next window is "System Settings." Enable or disable the Print Server's various printer protocols from here. When finished, click **Next**.



3. The next window is "TCP/IP Settings" From this window, the Print Server's IP address can be changed, and a DHCP server activated. When finished, click **Next**.



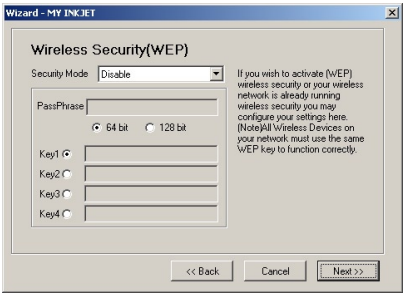
4. The next window is "Netware Settings." Configure the settings for the Netware network from here. When finished, click **Next**.



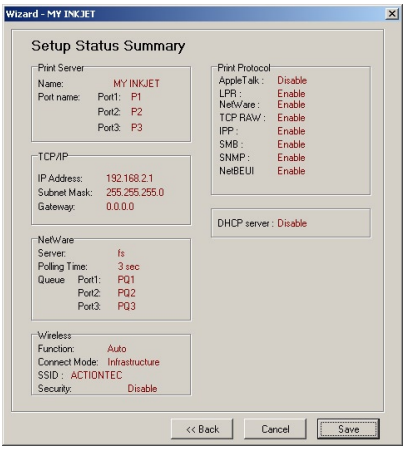
5. The next window is "Set Your Wireless Adapter Mode." Select Infrastructure or Ad Hoc, depending on what kind of wireless network the Print server is connecting to. When finished, click **Next**.

6. The next window is "Connect to Your Wireless Network." Select whether to scan for an existing wireless network, or join a particular one by entering its name in the text box. If "Scan For Your Wireless Network" was selected, another window, showing the available wireless networks, will appear. Select one, the click **Next**.

7. The next window is "Wireless Security (WEP)." Configure the wireless security settings from here. When finished, click **Next**.

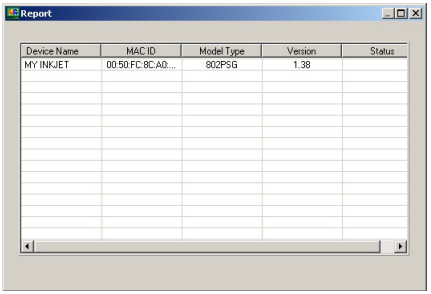


8. The last Wizard window is "Setup Status Summary." This window displays all of the Print Server's settings, after any changes made in the previous windows. To save the settings, click **Save**. To make additional changes, click **Back** to get to the window with the setting to be changed.



Report

Clicking the "Report" icon in the Print Server Manager" window generates the "Report" window. This window displays various information about the Print Server.



Refresh

Clicking the "Refresh" icon in the Print Server Manager window refreshes the information about the Print Server.

Reboot

Clicking the "Reboot" icon in the Print Server Manager window reboots the Print Server.

Search

Clicking the "Search" icon allowws the user to search for other Print Servers on the network.

Using the Web Administrator

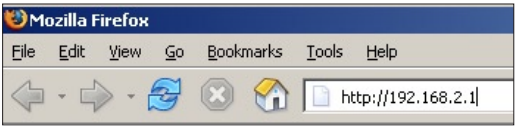
4

This chapter explains how to use the Print Server's Web Adminstrator, which allows the user to manage and configure the Print Server via a Web browser.

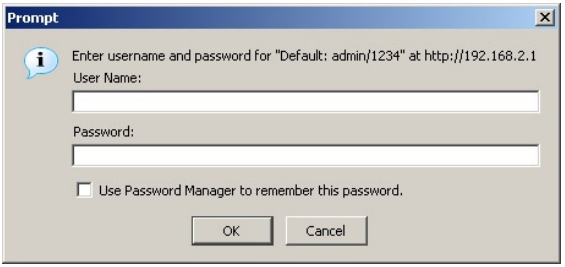
Accessing the Web Administrator

To access the Web Adminsitrator:

1. Open a Web browser. In the "Address" text box, type:
   `http://192.168.2.1`
   then press **Enter** on the keyboard.

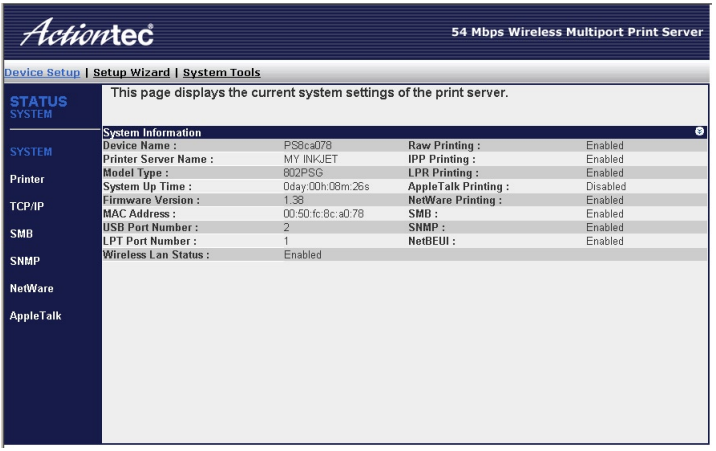


2. A login window appears. Enter the user name and password in the appropriate text boxes, then click **OK**.



☞ ***Note:*** The default user name is "admin." The default password is "1234."

The Web Administrator appears.



There are three options at the top of the screen: Device Setup, Setup Wizard, and System Tools.

Device Setup

The Web Administrator's "Device Setup" screen, (shown above) displays the current configuration of the Print Server. There are seven Device Setup options, listed along the left side: System Printer, TCP/IP, SMB, SNMP, NetWare, and AppleTalk. Click the option to generate an informational screen. None of the settings can be changed from the Device Setup screens

System

The "System" screen (shown above) displays information about the Print Server.

Device Name

Displays the Print Server's device name.

Printer Server Name

Displays the Print Server's network name.

Model Type

Displays the Print Server's model type.

System Up Time

Displays the length of time the Print Server has been powered up. This value resets when the Print Server is rebooted.

MAC Address

Displays the Print Server's MAC address.

USB Port Number

Displays the number of the Print Server's USB ports.

LPTPort Number

Displays the number of the Print Server's LPT ports.

Wireless LAN Status

Displays the status of the Print Server's wireless configuration.

Printing Protocols (Raw Printing, IPP Printing, etc.)

Displays whether the Print Server's printing protocols are enabled or disabled.

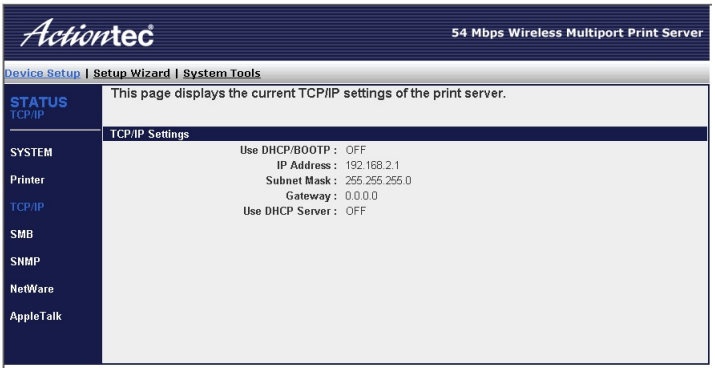
Printer

Selecting "Printer" in the Device Setup screen generates the "Printer" screen, which displays information about the printers connected to the Print Server.

For each printer connected to the Print Server, its manufacturer, model number, supported printing languages, and current status is displayed.

TCP/IP

Selecting "TCP/IP" in the Device Setup screen generates the "TCP/IP" screen, which displays information about the Print Server's TCP/IP connection.



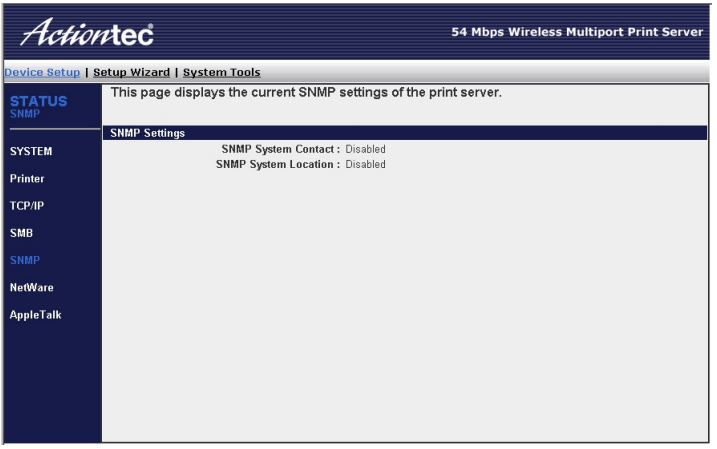
The screen displays the state of the Print Server's DHCP/BOOTP and DHCP Server connection, as well as its IP, subnet mask, and gateway addresses.

SMB

Selecting "SMB" in the Device Setup screen generates the "SMB" screen, which displays the Print Server's SMB group name.

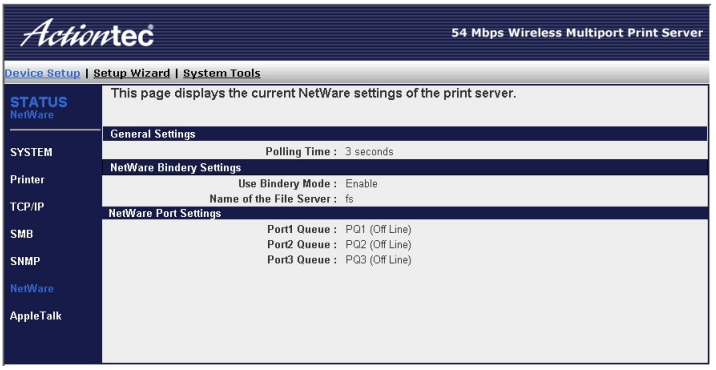
SNMP

Selecting "SNMP" in the Device Setup screen generates the "SNMP" screen, which displays information about the Print Server's SNMP connection, inlcuding system contact and location.



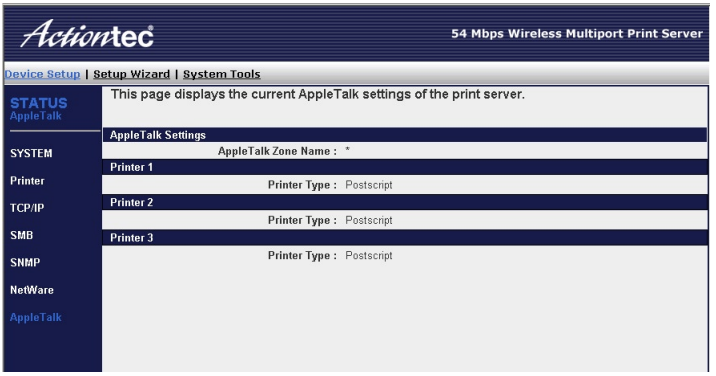
NetWare

Selecting "NetWare" in the Device Setup screen generates the "NetWare" screen, which displays information about the Print Server's NetWare connection, including polling time, bindery mode state, file server name, and the port queues for all three Print Server ports.



AppleTalk

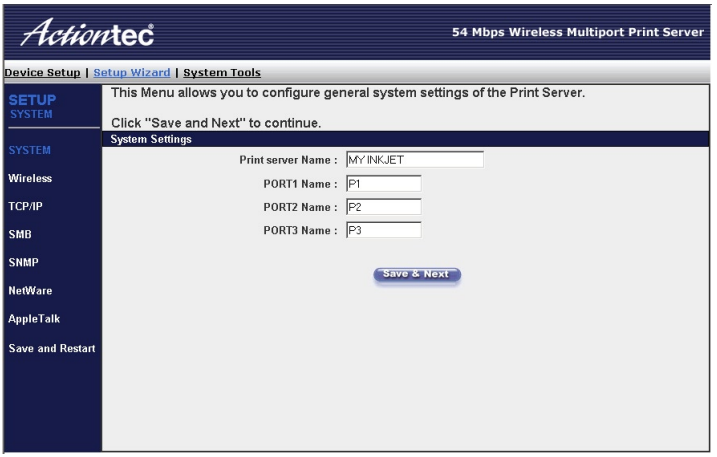
Selecting "AppleTalk" in the Device Setup screen generates the "AppleTalk" screen, which displays information about the Print Server's AppleTalk connection, including zone name, and the printer type for all printers connected to the Print Server.



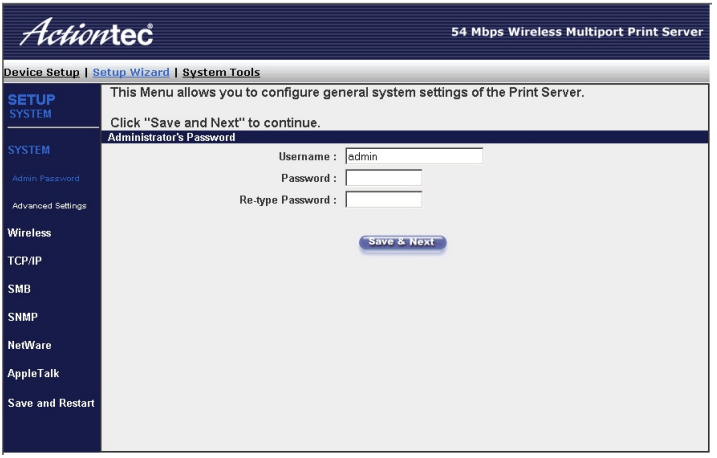
Setup Wizard

Selecting "Setup Wizard" from the Web Administrator at the top of the screen generates the Setup Wizard. Use the following procedure to run the Wizard:

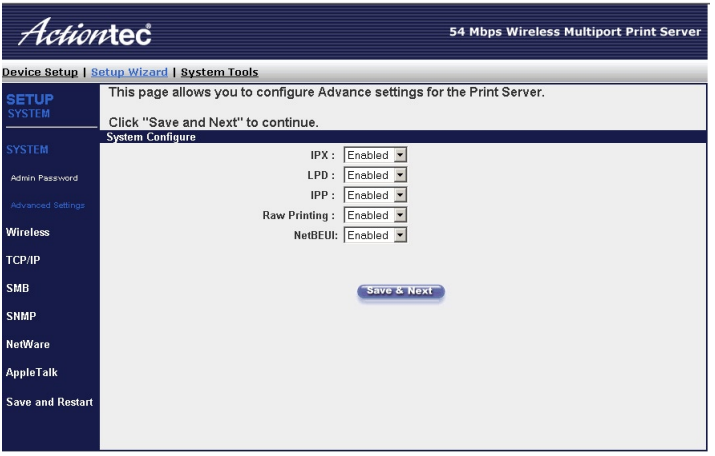
1. The first Wizard screen appears. From here, the Print Server's name and Port names can be changed. When finished, click **Save & Next**.



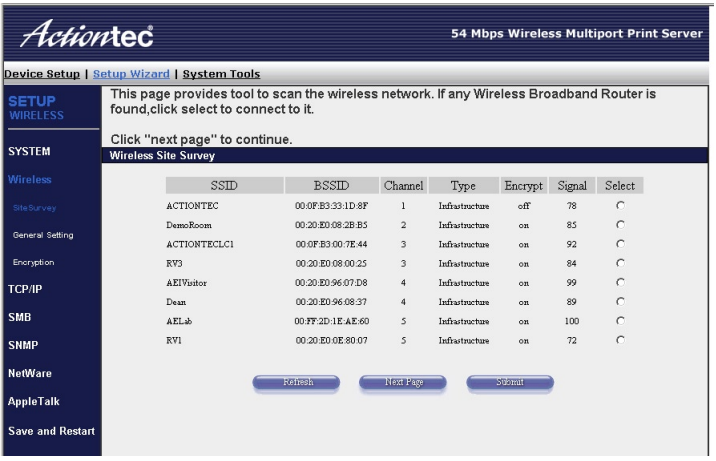
2. In next Wizard screen the default user name and password can be changed. Enter the new user name and password in the appropriate text boxes. When finished, click **Save & Next**.



3. In next Wizard screen, the Print Server's printing protocols can be enabled or disabled. For each protocol, select "Enabled" or "Disabled." When finished, click **Save & Next**.

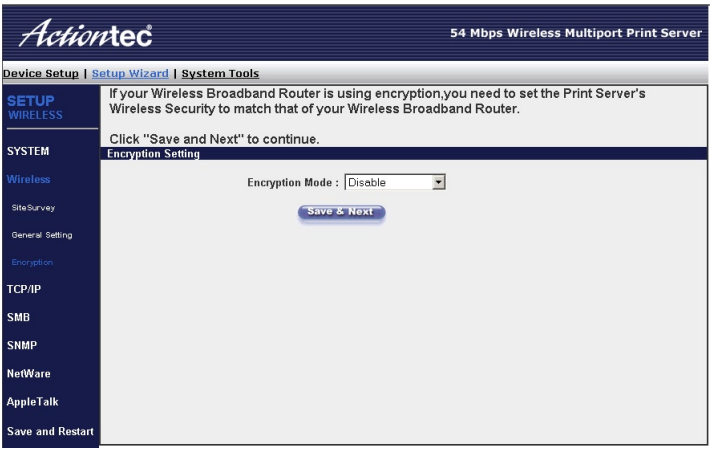


4. In next Wizard screen, a list of available wireless networks is displayed. To coneect to one, click the appropriate circle in the "Select" column and click **Submit**. To refresh the list, click **Refresh**. When finished, click **Next Page**.



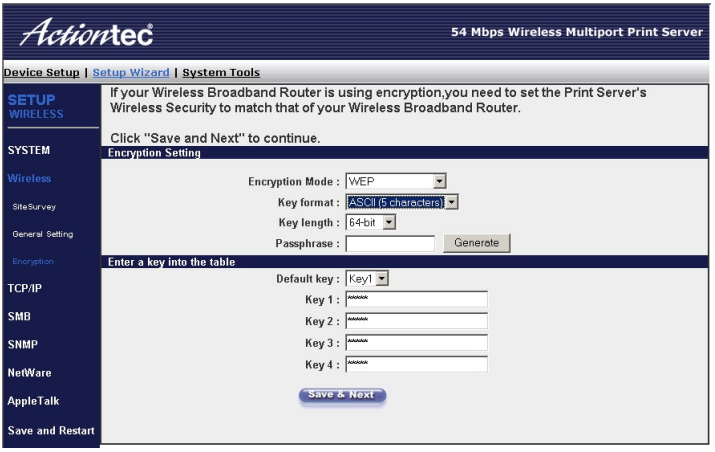
5. In next Wizard screen, the wireless network settings are configured. Select either "Infrastructure" or "AdHoc" from the "Mode" text menu. Infrastructure should be used if connecting to an already existing wireless network. Select Ad Hoc to create a peer-to-peer wireless network. Then enter the SSID and Channel number of the wireless network in the appropriate text boxes. When finished, click **Save & Next**.

6. In next Wizard screen, the wireless network security settings are configured. From the "Encryption Mode" text box, select "Disabled," "WEP," or "WPA-shared key," depending on the type of encryption the wireless network is using. If the network is not using encryption, select Disabled, click **Save & Next**, and go to step 7. If WEP or WPA-shared key is selected, continue to the next page.



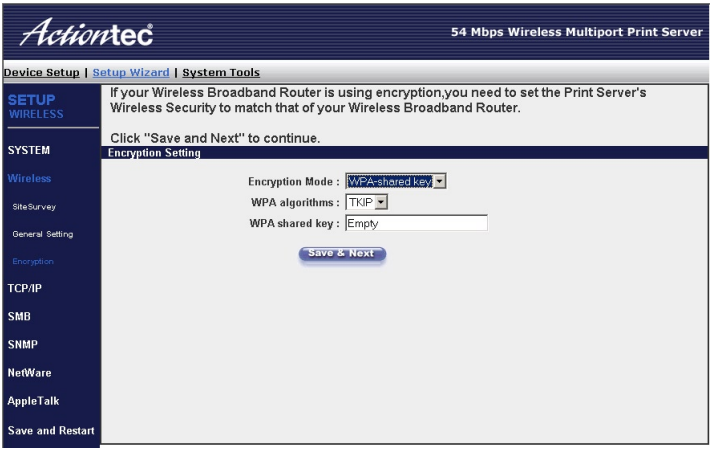
WEP

If WEP was selected, the "WEP" screen appears. If the wireless network the Print Server is connected to is using WEP, enter the wireless network's WEP settings in this screen. When finished, click **Save & Next**.

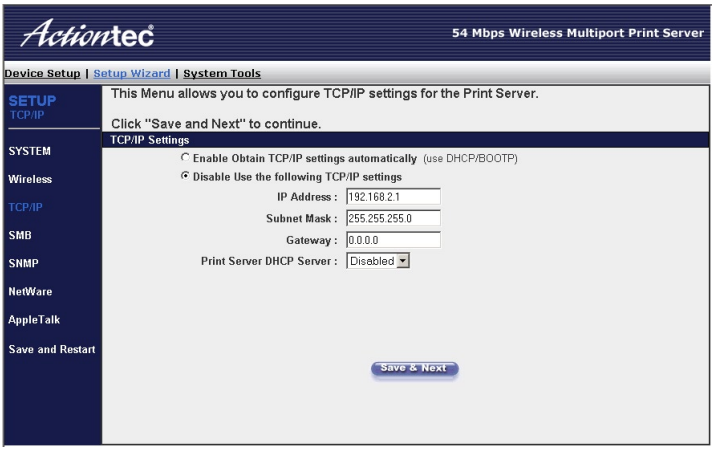


WPA- shared key

If WPA-shared key was selected, the "WPA-shared key" screen appears. If the wireless network the Print Server is connected to is using WPA, enter the wireless network's WPA settings in this screen. When finished, click **Save & Next**.

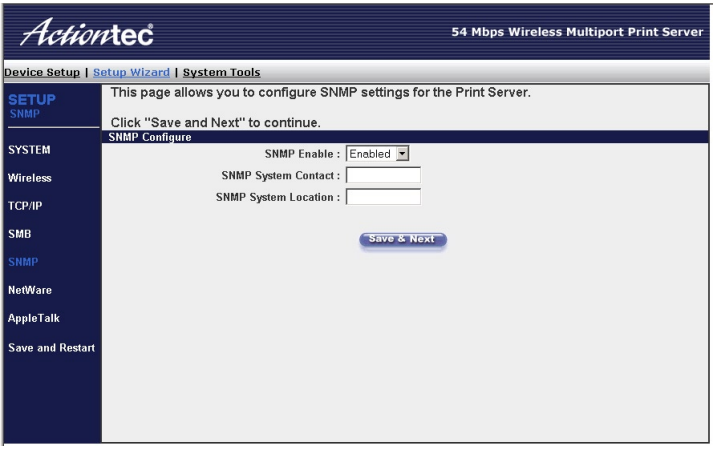


7. In next Wizard screen, the user can configure the Print Server to automatically get its IP address from the network's DHCP server, or manually specify a static IP address. To configure the Print Server to automatically get an IP address from the network's DHCP server, activate "Enable Obtain TCP/IP settings automatically." To manual assign an IP address, activate "Disable Use the following TCP/IP settings" then enter "IP Address," "Subnet Mask," and "Gateway" addresses for the Print Server. Also, the Print Server's DHCP server can be enabled or disabled from this screen. When finished, click **Save & Next**.

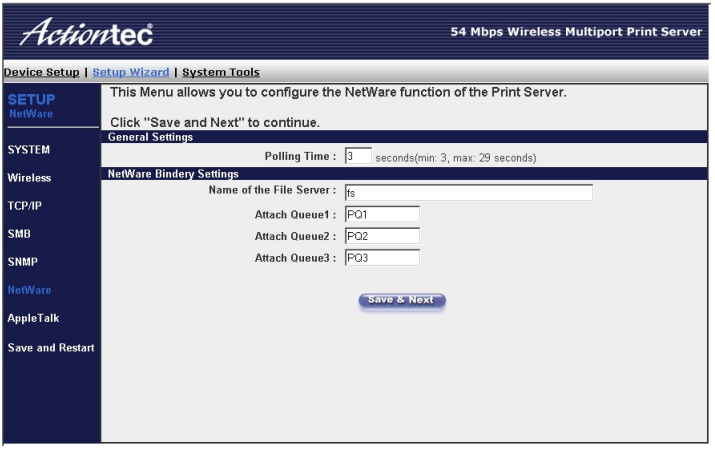


8. In next Wizard screen, the SMB settings of the Print Server can be changed. When finished, click **Save & Next**.

9. In next Wizard screen, the SNMP settings of the Print Server can be changed. When finished, click **Save & Next**.

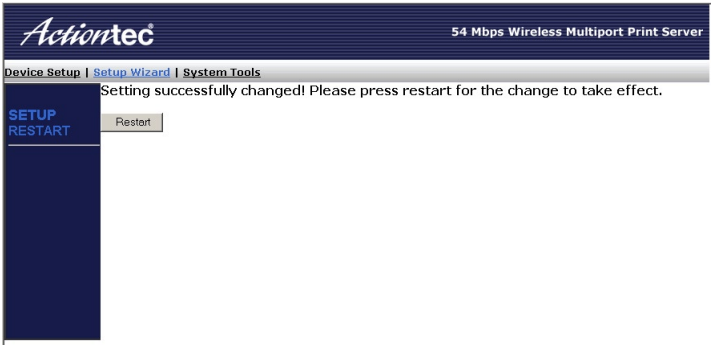


10. In next Wizard screen, the NetWare settings of the Print Server can be changed. When finished, click **Save & Next**.



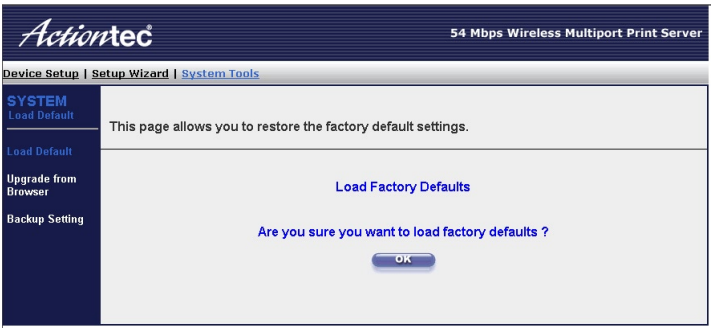
11. In next Wizard screen, the AppleTalk settings of the Print Server can be changed. When finished, click **Save & Next**.

12. In next Wizard screen, click **Restart** to save all changes made in the Wizard.



System Tools

Selecting **System Tools** from the Web Administrator at the top of the screen generates the "System Tools" window. There are three options in the System Tools screen: Load Default, Upgrade from Browser, and Backup Setting.

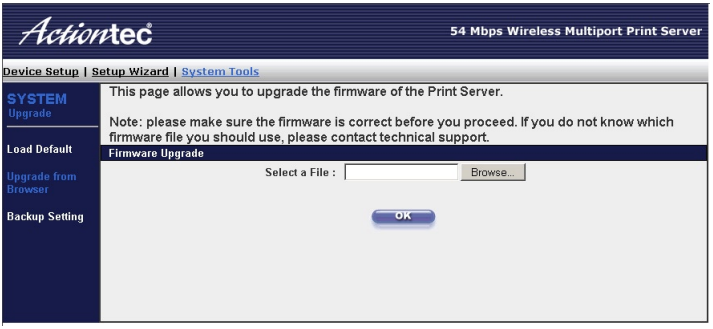


Load Default

Selecting **Load Default** from the menu of the left side of the System Tools screen generates the "Load Default" screen (see above). Here, the factory default settings of the Print Server can be reloaded. Click **OK** to reload the factory default settings.

Upgrade from Browser

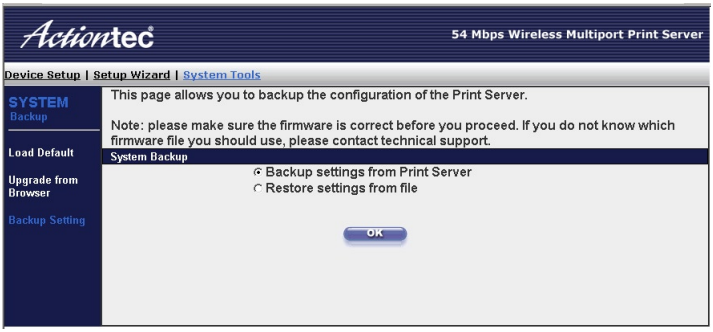
Selecting **Upgrade from Browser** from the menu of the left side of the System Tools screen generates the "Upgrade from Browser" screen.



To upgrade the firmware of the Print server, click **Browse**. Find the upgrade file and select it. When it appears in the text box in the Upgrade from Browser window, click **OK**. The Print Server's firmware is upgraded.

Backup Setting

Selecting **Backup Setting** from the menu of the left side of the System Tools screen generates the Backup Setting screen.



To backup the current settings of the Print server, click in the circle next to "Backup settings from Print Server," then click **OK** and save the file on the hard drive. To restore a particular group of settings on the Print Server, click in the circle next to "Restore settings from file" and browse for the settings file. Select the file, then click **OK**. The settings will be loaded onto the "Print Server."

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Accessing Printers From the Network

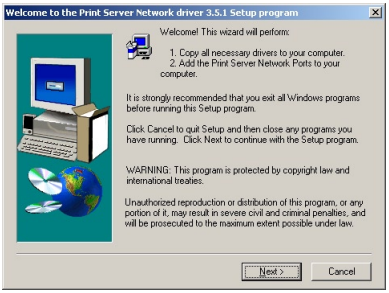
5

This chapter explains how to access the printers connected to the Print Server from another computer on the network:

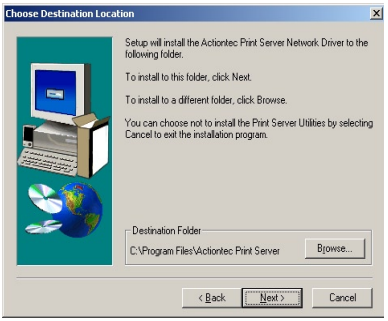
1. Make sure the drivers corresponding to the printer are installed on the computer.

2. Insert the Installation CD in the CD-ROM drive of the computer. When the window shown below appears, click **Install Print Server Client Only.**

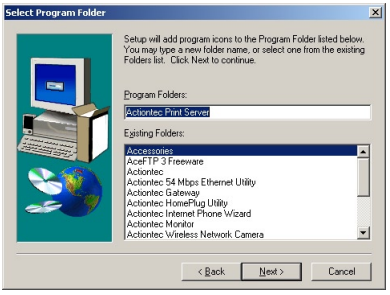
3. The "Welcome" window appears. Click **Next**.



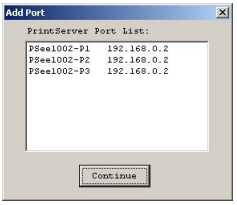
4. The "Choose Destination Location" window appears. Click **Next**.



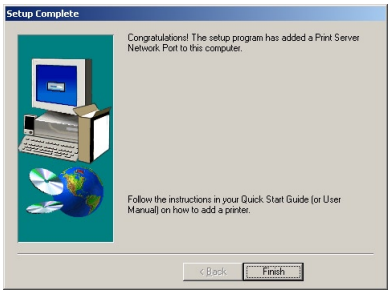
5. The "Select Program Folder" window appears. Click **Next**.



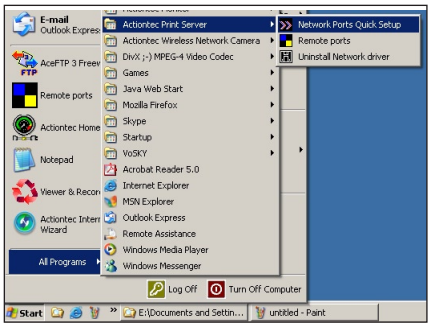
6. The "Add Port" window appears. Click **Continue**.



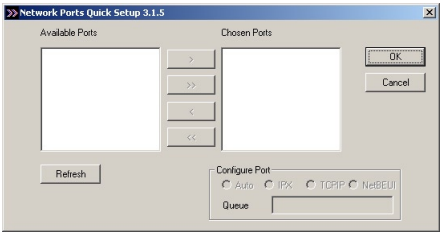
7. The "Installation Complete" window appears. Click **Finish** to finish the installation of the software.



8. Select "Network Ports Quick Setup" from the "Actiontec Print Server" directory in the "Programs" folder of the computer.



9. The "Network Ports Quick Setup" window appears. To select a printer, highlight it in the "Available Port" text box, then click the > button. Once the printer is listed in the "Chosen Ports" text box, click **OK**. The printer is now accessible from this computer and ready to print.



Repeat this procedure to use printers connected to the Print Server from other computers on the network.

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Troubleshooting 6

This chapter contains a list of problems that may be encountered while using the Print Server, and solutions to these problems. Note that the solution may not solve the problem.

The Printer Server Utility does not detect the Print Server

Close down the Utility and restart it.

While saving settings, a "Save Timed Out" error occurs.

Close down the Utility and restart it.

Printer prints strange or nonsensical characters.

First, clear the printer's queue from the Print Manager (Start, Control Panel, Printer). If the problem persists, power cycle the printer and the Print Server.

Computer is printing to the wrong printer.

Make sure the print port selected is the correct printer port in the Print Server Manager. If the problem persists, power cycle the printer and Print Server.

☞ ***Note***: To view a list of frequently asked questions regarding the Print Server, go to the Actiontec Support Web site.

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Specifications

a

Model Number

802PSG (Actiontec 54 Mbps Wireless Multiport Print Server)

Ports

Two USB 1.1 (2.0 compatible), 1 Parallel

Network Interface

10/100 (Auto MDIX); 802.11g Wireless LAN

Wireless Security

64-, 128-bit WEP; WPA-PSK

Standards

IEEE 802.11g; 802.11b; 802.3; USB 1.1; IEEE 1284

Protocols

TCP/IP; IPP; DHCP; LPR; RAW; SMB; AppleTalk

Power Input

12VDC 1A Linear

Memory

2 MB Flash; 16 MB SDRAM

Certification

FCC Part 15

LED Indicators

PWR, WLAN, Printer 1, Printer 2, Printer 3, LAN

Dimensions (LxWxH)

7.5 x 4.5 x 1.2 in.

Weight

.13 lbs.

Operating temperature

0° - 55° C (32° - 131° F)

Relative Humidity

> 80 % (non-condensing)

Limited Warranty

1 year

Note: Specifications are subject to change without notice.

Using Internet Printer Protocol

b

This appendix explains how to use Internet Printer Protocol (IPP) to access the Print Server using Internet Protocol (IP). Using this method, the printers connected to the Print Server can be accessed by users over the Internet, provided they know the printer model, printer port, and IP address of the Print Server.

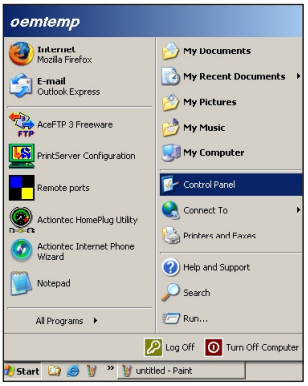
Setting Up the Print Server

It is not necessary to modify the Print Server's settings to implement IPP. The user should be familiar with the Print Server's IPP settings, making sure they are correctly set to the network's IP settings. If unaware of the network's routed IP settings, contact the system administrator. To share the Print Server with Internet users outside the local area network (LAN), the Print Server must be configured with an outside IP address and if a gateway, router, or firewall is installed, that these devices do not block the IPP. Contact the system administrator or consult the gateway or router user manual for more information about DMZ or port mapping configuration settings.

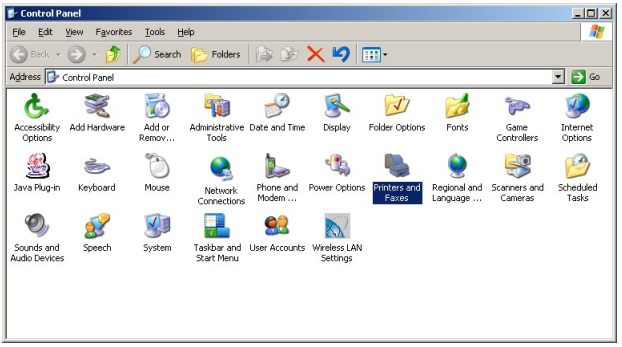
Accessing the Print Server via IPP

If the Print Server is properly configured using IPP, accessing a printer connected to it over the Internet is done using the standard "Add New Printer" procedure:

1. From the computer's desktop, select **Start**, then **Control Panel**.



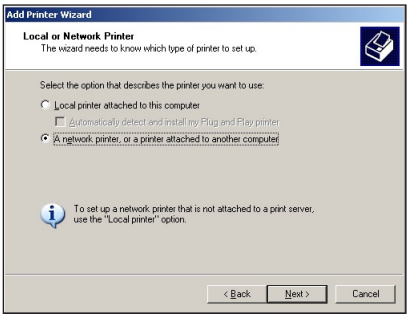
2. In the "Control Panel" window, double-click on the **Printers** icon.



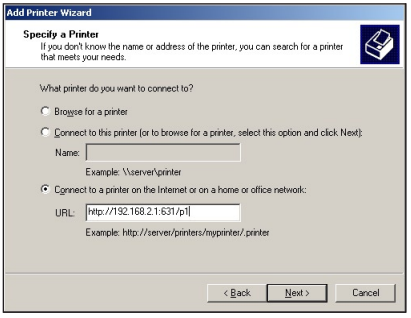
3. In the "Printer" window, double-click **Add Printer**.

4. The first "Add Printer Wizard" window appears. Click **Next**.

5. In the next window, select "A network printer, or a printer attached to another computer" by clicking in the appropriate circle, then click **Next**.



6. In the next window, select "Connect to a printer on the Internet or on a home or office network" by clicking in the appropriate circle, then enter the URL of the Print Server and printer in the "URL" text box. The format of the URL is as follows: **http://Print Server IP address:631/printer port number.** In the example below, the Print Server IP address is "192.168.2.1," and the printer port number (the Print Server port to which the printer is connected) is "p1." Click **Next**.



7. Complete the Add Printer Wizard in the usual fashion.

The Print Server is now accessible via the Internet.

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Glossary

C

Access Point

A device that allows wireless clients to connect to one another. An access point can also act as a bridge between wireless clients and a "wired" network, such as an Ethernet network. Wireless clients can be moved anywhere within the coverage area of the access point and remain connected to the network. If connected to an Ethernet network, the access point monitors Ethernet traffic and forwards appropriate Ethernet messages to the wireless network, while also monitoring wireless traffic and forwarding wireless client messages to the Ethernet network.

ATM (Asynchronous Transfer Mode)

A networking technology based on transferring data in fixed-size packets

Client

A desktop or mobile computer connected to a network.

DHCP (Dynamic Host Configuration Protocol)

A protocol designed to automatically assign an IP address to every computer on your network.

DNS (Domain Name System) Server Address

Allows Internet host computers to have a domain name and one or more IP addresses. A DNS server keeps a database of host computers and their respective domain names and IP addresses so that when a user enters a domain name into a Web browser, the user is sent to the proper IP address. The DNS server address used by computers on the home network corresponds to the location of the DNS server the ISP has assigned.

DSL (Digital Subscriber Line) Modem

A modem that uses existing phone lines to transmit data at high speeds.

Encryption

A method to allow wireless data transmissions a level of security.

ESSID (Extended Service Set Identifier)

A unique identifier for a wireless network. Also known as "SSID."

Ethernet Network

A standard wired networking configuration using cables and hubs.

Firewall

A method preventing users outside the network from accessing and/or damaging files or computers on the network.

Gateway

A central device that manages the data traffic of your network, as well as data traffic to and from the Internet.

IP (Internet Protocol) Address

A series of four numbers separated by periods identifying a unique Internet computer host.

ISP Gateway Address

An IP address for the Internet router. This address is only required when using a cable or DSL modem.

ISP (Internet Service Provider)

A business that allows individuals or businesses to connect to the Internet.

LAN (Local Area Network)

A group of computers and devices connected together in a relatively small area (such as a house or an office). A home network is considered a LAN.

MAC (Media Access Control) Address

The hardware address of a device connected to a network.

NAT (Network Address Translation)

A method allowing all of the computers on a home network to use one IP address, enabling access to the Internet from any computer on the home network without having to purchase more IP addresses from the ISP.

PC Card

An adapter that inserts in the PCMCIA slot of a computer, enabling the communication with a device.

PPPoE (Point-To-Point Protocol over Ethernet)/
PPPoA (Point-To-Point Protocol over ATM)

Methods of secure data transmission.

Router

A central device that manages the data traffic of your network.

Subnet Mask

A set of four numbers configured like an IP address used to create IP address numbers used only within a particular network.

SSID

See "ESSID."

TCP/IP (Transmission Control Protocol/Internet Protocol)

The standard protocol for data transmission over the Internet.

WAN (Wide Area Network)

A network that connects computers located in separate areas, (i.e., different buildings, cities, countries). The Internet is a WAN.

WECA (Wireless Ethernet Compatibility Alliance)

An industry group that certifies cross-vender interoperability and compatibility of IEEE 802.11b wireless networking products and promotes the standard for enterprise, small business, and home environments.

WLAN (Wireless Local Area Network)

A group of computers and other devices connected wirelessly in a small area.

Notices

Regulatory Compliance Notices

Class B Equipment

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by implementing one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and receiver;
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected;
- Consult the dealer or an experienced radio or television technician for help.

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Actiontec Electronics, Inc., may void the user's authority to operate the equipment.

Declaration of conformity for products marked with the FCC logo – United States only.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference

2. This device must accept any interference received, including interference that may cause unwanted operation

☞ ***Note***: To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

For questions regarding your product or the FCC declaration, contact:

Actiontec Electronics, Inc.
760 North Mary Ave.
Sunnyvale, CA 94086
United States
Tel: (408) 752-7700
Fax: (408) 541-9005

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Actiontec Electronics' sole obligation under this express warranty shall be, at Actiontec's option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, Actiontec Electronics may, in its sole discretion, refund to Customer the purchase price paid for the defective product. All products that are replaced will become the property of Actiontec Electronics, Inc. Replacement products may be new or reconditioned. Actiontec Electronics warrants any replaced or repaired product or part for ninety (90) days from shipment, or the remainder of the initial warranty period, whichever is longer.

Software: Actiontec Electronics warrants to Customer that each software program licensed from it will perform in substantial conformance to its program specifications, for a period of ninety (90) days from the date of purchase from Actiontec Electronics or its authorized reseller. Actiontec Electronics warrants the media containing software against failure during the warranty period. The only updates that will be provided are at the sole discretion of Actiontec Electronics and will only be available for download at the Actiontec Web site, www.actiontec.com. Actiontec Electronics' sole obligation under this express warranty shall be, at Actiontec Electronics' option and expense, to refund the purchase price paid by Customer for any defective software product, or to replace any defective media with software which substantially conforms to applicable Actiontec Electronics published specifications. Customer assumes responsibility for the selection of the appropriate applications program and associated reference materials. Actiontec Electronics makes no warranty or representation that its software products will meet Customer's requirements or work in combination with any hardware or applications software products provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected. For any third-party products listed in the Actiontec Electronics software product documentation or specifications as being compatible, Actiontec Electronics will make reasonable efforts to provide compatibility, except where the non-compatibility is caused by a "bug" or defect in the third party's product or from use of the software product not in accordance with Actiontec Electronics published specifications or user guide.

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Return the product to:
(In the United States)
Actiontec Electronics, Inc.
760 North Mary Avenue
Sunnyvale, CA 94085

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Dispute Resolution: The customer may contact the Director of Technical Support in the event the Customer is not satisfied with Actiontec Electronics' response to the complaint. In the event that the Customer is still not satisfied with the response of the Director of Technical Support, the Customer is instructed to contact the Director of Marketing. In the event that the Customer is still not satisfied with the response of the Director of Marketing, the Customer is instructed to contact the Chief Financial Officer and/or President.

Governing Law: This Limited Warranty shall be governed by the laws of the State of California, U.S.A., excluding its conflicts of laws and principles, and excluding the United Nations Convention on Contracts for the International Sale of Goods.